

7. (New) A coil system according to claim 6, wherein the at least one internal magnet is disposed within the implantable prosthesis.
8. (New) A coil system according to claim 1, wherein the implantable prosthesis is a cochlear implant.
9. (New) A coil system for use with an implantable prosthesis and an external transmitter, the system comprising:
at least one external coil attached to the external transmitter;
at least one internal coil attached to the implantable prosthesis, the internal coil for transferring signals with the external coil; and
an internal magnet attached to the implantable prosthesis, the internal magnet for aligning the external transmitter, the internal magnet capable of aligning with an external magnetic field so as to reduce torque exerted by the external magnetic field.
10. (New) A coil system according to claim 9, further comprising an external magnet attached to the external transmitter, wherein attractive forces between the internal magnet and the external magnet hold the external transmitter in place so as to permit a sufficient transmission quality between the external coil and the internal coil.
11. (New) A coil system according to claim 9, wherein the at least one internal coil includes a first coil and a second coil of identical inductance, adapted to be positioned substantially equidistant from the external transmitter, the first coil connected to the second coil such that the

winding direction of the first coil is antiparallel to the winding direction of the second coil, and such that the sum of the voltages induced in the first coil and the second coil by a homogeneous electromagnetic field is substantially equal to zero.

12. (New) A coil system according to claim 11, wherein the first coil is positioned outside a housing of the second coil, the first coil and second coil having identical areas.

13. (New) A coil system according to claim 9, wherein the at least one external coil includes a third coil and a fourth coil of identical inductance, adapted to be positioned substantially equidistant from the implantable prosthesis, the third coil connected to the fourth coil such that the winding direction of the third coil is antiparallel to the winding direction of the fourth coil such that the sum of the voltages induced in the third coil and the fourth coil by a homogeneous electromagnetic field is substantially equal to zero.

14. (New) A coil system according to claim 13, wherein the third coil is positioned outside a housing of the fourth coil, the third coil and the fourth coil having identical areas.

15. (New) A coil system according to claim 9, wherein the at least one internal coil receives at least one of power and stimulation data from the external transmitter.

16. (New) A coil system according to claim 9, wherein the at least one internal coil and the at least one external coil is adapted to operate at a frequency:

greater than or equal to 2 MHz, and

less than or equal to 50 MHz.

17. (New) A coil system according to claim 9, wherein at least one of the implantable prosthesis and the external transmitter includes a magnetic reed switch arrangement for providing overvoltage protection in the presence of a magnetic field.

18. (New) A coil system according to claim 9, wherein the internal magnet is disposed within the implantable prosthesis.

19. (New) A coil system according to claim 9, wherein the implantable prosthesis is a cochlear implant.

20. (New) A method for transmitting electronic waves between an external coil of an external transmitter and an internal coil of an implantable prosthesis, the method comprising:

attaching at least one external coil to the external transmitter;

attaching at least one internal coil to the implantable prosthesis;

attaching an internal magnet to the implantable prosthesis, the internal magnet for aligning the external transmitter, the internal magnet capable of aligning with the external magnetic field.

21. (New) A method according to claim 20, further comprising attaching an external magnet to the external transmitter.

22. (New) A method according to claim 20, further comprising subcutaneously implanting the implantable prosthesis.

23. (New) A method according to claim 22, further comprising aligning the external transmitter with the internal magnet such that the internal magnet holds the external transmitter in place, whereby a sufficient transmission quality between the at least one external coil and the at least one internal coil is obtained.

24. (New) A method according to claim 23, further comprising attaching an external magnet to the external transmitter, wherein aligning the external transmitter with the internal magnet includes holding the external transmitter in place via attractive forces between the internal magnet and the external magnet.

25. (New) A method according to claim 23, further comprising transferring at least one of power and stimulation data from the at least one external coil to the at least one internal coil.

26. (New) A method according to claim 23, further comprising operating the at least one internal coil and the at least one external coil at a frequency:

greater than or equal to 2 MHz, and

less than or equal to 50 MHz.

27. (New) A method according to claim 22, further comprising exposing the implantable prosthesis to an external magnetic field, wherein the internal magnet aligns with the external magnetic field.

28. (New) A method according to claim 20, wherein providing the internal magnet includes disposing the internal magnet within the implanted prosthesis.

29. (New) A method according to claim 20, further comprising including a magnetic reed switch arrangement in at least one of the implantable prosthesis and the external transmitter so as to provide overvoltage protection in the presence of a magnetic field.

30. (New) A method according to claim 20, wherein attaching the at least one internal coil includes:

providing a first coil and a second coil having identical inductance, the first coil and the second coil adapted to be substantially equidistant from the external transmitter; and

connecting the first coil to the second coil such that the winding direction of the first coil is antiparallel to the winding direction of the second coil, such that the sum of the voltages induced in the first coil and the second coil by a homogeneous electromagnetic field is substantially equal to zero.

31. (New) A method according to claim 30, wherein providing the first coil and the second coil includes positioning the first coil outside a housing of the second coil, the first coil and second coil having identical areas.

32. (New) A method according to claim 20, wherein attaching the external coil includes:

providing a third coil and a fourth coil of identical inductance, adapted to be positioned substantially equidistant from the implantable prosthesis; and

connecting the third coil and the fourth coil such that the winding direction of the third coil is antiparallel to the winding direction of the fourth coil such that the sum of the voltages induced in the third coil and the fourth coil by a homogeneous electromagnetic field is substantially equal to zero.

33. (New) A method according to claim 32, wherein providing the third coil and the fourth coil includes positioning the third coil outside a housing of the fourth coil, the third coil and the fourth coil having identical areas.

Support for New Claims

In accordance with 37 CFR §1.173(c), the following support is provided for the new claims as submitted herewith as follows:

With regard to dependent claims 6-8:

- the at least one magnet for holding the external transmitter in place, the magnet capable of aligning with an external magnet field, as per claim 6 is described at col. 1, lines 33-35, and col. 7, line 28 to col. 8, line 3;

- the at least one internal magnet disposed within the implantable prosthesis, as per claim 7 is described at col. 7, line 29 through col. 8, line 3; and

- that the implantable prosthesis is a cochlear implant, as per claim 8 is described at col. 4, lines 53-58.

With regard to claim 9: